

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A disc brake comprising:
two brake shoes, which for generating a clamping force are pressable against both sides of a brake disc;
a conversion device, which is connectable to a motor and which converts a driving motion of the motor into an actuating motion for actuating at least one of the brake shoes;
a support device for taking up a reaction force, which upon generation of the clamping force is introduced into the conversion device; and
two or more force sensors for measuring at least a fraction of the reaction force;
wherein a bearing is disposed between opposing faces of the conversion device and the support device and the two or more force sensors are fastened in or on a component of the bearing spaced apart at different positions between the conversion device and the support device; and wherein each of the two or more sensors comprises a carrier substrate and a piezoresistive layer having a bridge configuration applied on a planar outer surface of the carrier substrate, the outer surface of the carrier substrate facing the support device.
2. (Previously Presented) The disc brake according to claim 1, wherein the two or more force sensors have a planar form of construction.
3. (Cancelled)
4. (Cancelled)
5. (Previously Presented) The disc brake according to claim 1, wherein the two or more force sensors are disposed at a distance from one another in a plane at right angles to a longitudinal axis of the disc brake.

6. (Previously Presented) The disc brake according to claim 1, wherein the disc brake comprises four or more force sensors, and wherein each two adjacent force sensors have an angular distance in the order of magnitude of 90° or less in relation to the longitudinal axis of the disc brake.

7. (Previously Presented) The disc brake according to claim 1, wherein the support device is coupled rigidly to a housing of the disc brake.

8. (Previously Presented) The disc brake according to claim 7, wherein the support device comprises a step formed in the housing of the disc brake.

9. (Previously Presented) The disc brake according to claim 8, wherein the two or more force sensors are applied onto the step or integrated at least partially into the step.

10. (Cancelled)

11. (Cancelled)

12. (Previously Presented) The disc brake according to claim 1, wherein the conversion device converts a rotary driving motion of the motor into a translatory actuating motion for actuating at least one of the brake shoes.

13. (Previously Presented) The disc brake according to claim 12, wherein the support device interacts with a component of the conversion device, which component is settable in rotational motion.

14. (Previously Presented) The disc brake according to claim 12, wherein the conversion device comprises a nut/spindle arrangement.

15. (Previously Presented) The disc brake according to claim 14, wherein the support device comprises a step formed in the housing of the disc brake and wherein the spindle is settable in rotational motion and supported relative to the reaction force against the step.

16. (Cancelled)

17. (Currently Amended) A disc brake comprising:

a brake disc;

two brake shoes pressable against opposite sides of the brake disc;

a conversion device for converting a driving motion of an electromotor into an actuating motion for actuating at least one of the brake shoes;

a support device for receiving a reaction force that is introduced into the conversion device when the brake shoes are pressed against the brake disc; and

at least two force sensors for receiving at least a fraction of the reaction force;

wherein a bearing is disposed between opposing faces of the conversion device and the support device and the at least two force sensors are fastened in or on a component of the bearing spaced at an angular distance from one another with respect to an axis of rotation of the brake disc; and wherein each of the two or more sensors comprises a carrier substrate and a piezoresistive layer having a bridge configuration applied on a planar outer surface of the carrier substrate, the outer surface of the carrier substrate facing the support device.

18. (Currently Amended) A vehicle brake system having a disc brake, the disc brake comprising:

two brake shoes, which for generating a clamping force are pressable against both sides of a brake disc;

a conversion device, which is connectable to a motor and which converts a driving motion of the motor into an actuating motion for actuating at least one of the brake shoes;

a support device for taking up a reaction force, which upon generation of the clamping force is introduced into the conversion device; and

two or more force sensors for measuring at least a fraction of the reaction force;

wherein a bearing is disposed between opposing faces of the conversion device and the support device and the two or more force sensors are fastened in or on a component of the bearing spaced apart at different positions between the conversion device and the support device; and wherein each of the two or more sensors comprises a carrier substrate and a piezoresistive layer having a bridge configuration applied on a planar outer surface of the carrier substrate, the outer surface of the carrier substrate facing the support device.

19. (Previously Presented) The disc brake according to claim 17, wherein the at least two force sensors are disposed at a distance from one another in a plane at right angles to a longitudinal axis of the disc brake.

20. (Cancelled)

21. (Previously Presented) The disc brake according to claim 18, wherein the two or more force sensors are disposed at a distance from one another in a plane at right angles to a longitudinal axis of the disc brake.